

**Micro Commercial Components** 



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### Features

- Halogen free available upon request by adding suffix "-HF" Lead Free Finish/RoHS Compliant("P" Suffix
- designates RoHS Compliant. See ordering information) **Guard Ring Protection**
- Low Forward Voltage Drop
- Low Power Loss For High Efficiency
- SD103AW: S4 Device Marking Code:
  - SD103BW: S5 SD103CW: S6

### **Maximum Ratings**

- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1 Operating Temperature: -55  $^\circ C$  to +125  $^\circ C$
- Storage Temperature: -55°C to +150°C
- Maximum Thermal Resistance; 300°C/W Junction to Ambient

MCC Part Number	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage		
SD103AW	40V	28V	40V		
SD103BW	30V	21V	30V		
SD103CW	20V	14V	20V		

#### Electrical Characteristics @ 25 $^\circ{ m C}$ Unless Otherwise Specified

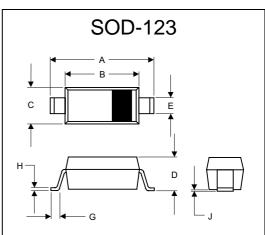
Average Forward Current	I <sub>F(AV)</sub>	350mA	Note 1
Peak Forward Surge Current	I <sub>FSM</sub>	1.5A	t≦1.0s
Maximum Power Dissipation	$P_D$	400mW	Note 1
Maximum (Note2) Instantaneous Forward Voltage	$V_{F}$	0.37V 0.60V	I <sub>FM</sub> = 20mA I <sub>FM</sub> = 200mA
Maximum DC Reverse Current At Rated DC Blocking Voltage	I <sub>R</sub>	5.0µA	$V_{R} = 30V (AW)$ $V_{R} = 20V (BW)$ $V_{R} = 10V (CW)$
Typical Junction Capacitance	Cj	50pF	Measured at 1.0MHz, V <sub>R</sub> =0V
Typical Reverse Recovery Time	t <sub>rr</sub>	10ns	$I_F = I_R = 200 \text{mA}$ $I_{rr} = 0.1 \times I_R R_L = 100 \Omega$
	Current Peak Forward Surge Current Maximum Power Dissipation Maximum (Note2) Instantaneous Forward Voltage Maximum DC Reverse Current At Rated DC Blocking Voltage Typical Junction Capacitance Typical Reverse Recovery Time	CurrentIF(AV)Peak Forward Surge CurrentIFSMMaximum Power DissipationPDMaximum (Note2) InstantaneousVFForward VoltageVFMaximum DC Reverse Current At Rated DC Blocking VoltageIRTypical Junction CapacitanceCjTypical Reverse Recovery Timetrr	CurrentIF(AV)350mAPeak Forward Surge CurrentIFF(AV)350mAMaximum Power DissipationIFSM1.5AMaximum Power DissipationPD400mWMaximum (Note2) Instantaneous Forward VoltageVF0.37V 0.60VMaximum DC Reverse Current At Rated DC Blocking VoltageIR5.0µATypical Junction CapacitanceCj50pFTypical Reverset10ps

Note: 1.Valid provided that electrodes are kept at ambient Temperature

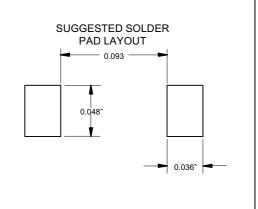
2.Pulse test: Pulse width 300 µsec, Duty cycle 2%

## **SD103AW** THRU **SD103CW**

## 400mW Small Signal **Schottky Diode** 20 to 40 Volts



	DIMENSIONS						
DIM	INC	INCHES		MM			
	MIN	MAX	MIN	MAX	NOTE		
А	.140	.152	3.55	3.85			
В	.100	.112	2.55	2.85			
С	.055	.071	1.40	1.80			
D		.053		1.35			
Е	.012	.031	0.30	0.78			
G	.006		0.15				
Н		.010		0.25			
J		.006		0.15			



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#### **Revision:** B

## SD103AW thru SD103CW



Figure 1 Typical Forward Characteristics 1000 800 600 400 200 100 80 60 MilliAmps 25°C 40 20 10 8 6 4 2 1 .2 .4 .6 .8 1.0 1.2 1.4 0 Volts

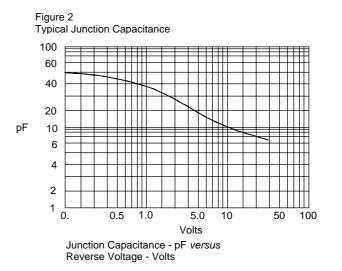
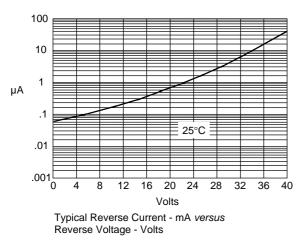


Figure 3 Typical Reverse Characteristics



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#### **Ordering Information :**

Device	Packing	
Part Number-TP	Tape&Reel: 3Kpcs/Reel	

Note : Adding "-HF" suffix for halogen free, eg. Part Number-TP-HF

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